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In this study, the Peabody Language Development Kit, originally designed for culturally deprived and mentally retarded children, was tested to see how it affected the psycholinguistic abilities and beginning reading development of normal children. Ninety-seven kindergartners were randomly divided into an experimental group who used the Peabody Kit and a control group taught language skills by conventional methods. The experimental treatment emphasized (1) oral expression, (2) divergent thinking, (3) use of spoken analogy, (4) automatic use of inflectional endings, (5) auditory memory, and (6) visual memory. The control treatment stressed convergent thinking and tasks requiring paper and pencil responses on the part of the child. At the end of the 24-week treatment period a random sample of 30 subjects from each group was given the Illinois Test of Psycholinguistic Abilities. The experimental group performed significantly better than the control group, especially in the Auditory-Vocal Association and the Vocal Encoding subtests. The subjects were randomly distributed (control and experimental groups together) into first grade classes for training in the Ginn Basic Reader. At the end of the year, the same sample of 30 subjects from each group was given the Gates-MacGinitie Reading Test. There was no significant difference between groups. (MH)

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A STUDY OF THE EFFECTS OF A GROUP LANGUAGE DEVELOPMENT PROGRAM UPON THE PSYCHOLINGUISTIC ABILITIES AND LATER BEGINNING READING SUCCESS OF KINDERGARTEN CHILDREN

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The relationship between intelligence, particularly the verbal function of the intellect, and academic success has long been recognized by educators. In the past much has been done in the way of measuring and analyzing verbal intelligence; however, until very recently not much has been done experimentally to improve verbal intelligence in young children.

Special educators have long realized that one of the major characteristics of the educable mentally retarded child is his language limitation. In 1965 Lloyd M. Dunn and James O. Smith designed a language development program specifically to stimulate oral language and verbal intelligence, which they named the Peabody Language Development Kit (1). The Peabody Language Development Kit was designed for culturally deprived, mentally retarded children with mental ages between four and one-half and six and one-half. Dunn and Smith are convinced that a part of the disadvantaged and educable retarded child's language problem is caused by living in a less stimulating environment than the normal child.

According to Dunn and Smith (1), The Peabody Language Development Kit is designed: (a) to stimulate the overall oral language facility of the disadvantaged and retarded, (b) to develop their verbal intelligence through training, and therefore, (c) to enhance their school progress. The model for the Peabody Language Development Kit draws on Osgood's (4) linguistic theory which also forms the basis for the Illinois Test of Psycholinguistic Abilities.

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The Peabody Language Development Kit is a highly structured language program containing 180 detailed daily lessons. According to the authors of the program, the teacher needs no special training to present the program. If the reader wishes more information about the Peabody Language Development Kit he should consult the Teacher's Manual which accompanies the program. Furthermore, the reader can also determine precisely the experimental treatment by reading the first 108 daily lesson plans, since the Teacher's Manual was carefully followed.

The Peabody Language Development Kit has proven to be moderately successful in achieving its purposes with culturally deprived children for whom it was designed. The present investigator, however, was interested in knowing what this program could do for the language facility of children who are not mentally retarded or culturally deprived. Since language facility and reading are closely related, the investigator was also interested in discovering the effects of the lessons from the Peabody Language Development Kit upon the learning to read process. Thus, the purpose of the present study was to investigate the effects of the Peabody Language Development Kit upon the psycholinguistic abilities of normal kindergarten children, and to determine the effectiveness of the program as a means of enhancing the children's later success in beginning reading.

Methodology

Population

The population in this study consisted of 97 children who comprised four kindergarten classes of an elementary school. Prior to the beginning of school, the subjects were randomly placed in two experimental and two control groups. The experimental groups were divided into two classes of 25 and 24 children and were taught by the same teacher in the morning and

afternoon classes, respectively. The control teacher had 24 subjects in each of her morning and afternoon classes.

To reduce the time needed to administer and score the Illinois Test of Psycholinguistics Abilities used in the study, it was decided that a random sample of 30 subjects should be drawn from the experimental groups and 30 subjects should be drawn from the control groups. A table of random numbers was used to select fifteen students from each of the four classes involved in the study. The total sample, therefore, consisted of 30 students in the experimental group and 30 students in the control group. The ratio of boys to girls was precisely the same in both the experimental and control groups.

The cultural backgrounds of the subjects in this experiment were varied. There were both Negroes and Caucasians in the experimental and control groups. The parents of the children were from both the laboring class and the professions. The random assignment of the children into experimental and control groups yielded comparable groups across treatments.

Treatments

The essential difference between the experimental treatment and the control treatment was that the experimental treatment included lessons from the Peabody Language Development Kit, while the control treatment did not. The length of the kindergarten class for both the experimental group and the control groups was 175 minutes. During each class day, the children in the experimental group were taught 40 to 45 minutes daily lessons from the Peabody Language Development Kit. Although the Peabody Language Development Kit includes 180 daily lessons, the 24 week treatment period permitted

only the first 108 lessons to be taught. Each daily lesson took from 40 to 45 minutes to be taught; therefore, nearly all the time the experimental teacher set aside for language arts activities was used for teaching these lessons. An analysis of the experimental teacher's and the control teacher's lesson plans revealed that aside from the activities in the Peabody Kit, the experimental teacher conducted no lessons which were not similarly taught by the control teacher. The experimental treatment differed from the control treatment in its emphasis upon: (1) oral expression, (2) divergent thinking, (3) use of spoken analogy, (4) automatic use of inflectional endings, (5) auditory memory, and (6) visual memory. The control treatment differed from the experimental treatment in stressing mostly convergent thinking and tasks requiring paper and pencil responses on the part of the child.

Upon the completion of their kindergarten year, both the experimental and the control subjects involved in the study were randomly assigned to four first grade classes. Thus, the experimental and the control subjects were in the same classrooms during the first grade year. The Ginn Basic Readers (5) were used in all four first grade classrooms. After 32 weeks, the children comprising the original experimental and control groups were selected and compared for reading ability.

Results

It was hypothesized that there were no differences in the effectiveness of the Peabody Language Development Program and the conventional language development program as measured by the Illinois Test of Psycholinguistic Abilities and a year later by the Gates-MacGinitie Reading Test. The differences between the means obtained by the experimental subjects and the control subjects were compared.

Since the samples in this experiment were randomly drawn from the same population and were not matched on any criterion, a two tailed t for unrelated samples was used to test the null hypotheses. Since the investigators were seeking to discover differences either in favor of the experimental sample or the control sample, the region of the rejection was placed on both tails of the t distribution using the .05 level of confidence.

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Table I

t VALUES FOR THE SUB-TESTS AND TOTAL
ILLINOIS TEST OF PSYCHOLINGUISTIC ABILITIES

Tests	Means		t Value
	Experimental (n=30)	Control (n=30)	
Auditory-Vocal Automatic	13.70	11.93	1.94
Visual Decoding	13.16	12.80	0.59
Motor Endoding	16.90	15.33	1.63
Auditory-Vocal Association	19.57	17.10	3.79*
Visual-Motor Sequencing	14.93	14.40	0.48
Vocal Encoding	19.37	13.53	6.09*
Auditory-Vocal Sequencing	22.17	21.13	0.72
Visual Motor Sequencing	16.93	15.23	2.02
Auditory Decoding	23.90	23.23	0.61
Total Test	160.67	144.70	3.27*

*t .01=2.76

Table I presents the means and t values obtained by the experimental sample and by the control sample on the total score of the Illinois Test of Psycholinguistic Abilities and on each of the nine sub-tests. It can be seen from Table I that the experimental subjects obtained a significantly greater mean score on the total of the Illinois Test of Psycholinguistics Abilities than did the control subjects. Moreover, the experimental subject obtained a higher mean score than the control subjects on each of the nine sub-tests of the Illinois Tests of Psycholinguistic Abilities. The means of the Auditory-Vocal Association Sub-test and the Vocal Encoding Sub-test proved to be significantly greater at the .01 level of confidence while the means of the other seven sub-tests were not statistically significant at the .05 level of confidence.

Table II

MEANS AND t VALUES FOR THE SUB-TEST OF THE GATES-MACGINITIE READING TEST

Tests	Means		t Value
	Experimental (n=20)	Control (n=18)	
Vocabulary	38.05	37.47	.16
Comprehension	23.20	21.47	.21
Total Test	61.25	58.94	.35

Table II contains the means and t values obtained by the experimental and control sample on the Gates MacGinitie Reading Test Form A, administered one year following the treatment. There were no significant differences on the vocabulary and comprehension sub-tests or the total score of the Gates MacGinitie Reading Test. The conclusions of this study are limited to the population studied. Nevertheless, there is tentative evidence that:

Conclusions

1. The language development program provided by the teaching of the lessons from the Peabody Language Development Kit was a more effective means of improving language development, as measured by the Illinois Test of Psycholinguistic Abilities, than was the more conventional language program described as the control treatment in this study.

2. It appears that the experimental treatment was more effective than the control treatment in improving the abilities of the subjects to relate spoken words in a meaningful way, as measured by the auditory-vocal association sub-test of the Illinois Test of Psycholinguistic Abilties. This ability was tested with the familiar analogies test in which the subject must com-

plete a test statement by supplying an analogous word.

3. The evidence in this study indicated that the experimental treatment was more effective than the control treatment in improving the abilities of the subjects to express ideas in spoken words. This ability was assessed by asking the subject to describe simple objects such as a ball or block.

4. There was no significant difference between the experimental subjects and the control subjects in the ability of the subjects to recognize or analyze isolated words or in the ability of the subjects to comprehend whole sentences and paragraphs as measured by the Vocabulary Sub-test and the Comprehension Sub-tests of the Gates-MacGinitie Reading Tests.

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